
5. Factorial

Program Name: Factorial.java

Input File: factorial.dat

A factorial of a non-negative integer is obtained by multiplying it by each of the non-negative integers leading up to it. For example, 4-factorial, also written as $4!$, is equal to $1 \times 2 \times 3 \times 4 = 24$. Factorials become very large very quickly. Here are two cases:

$10! = 3628800$

$100! =$

933262154439441526816992388562667004907159682643816214685929638952175999932299
156089414639761565182862536979208272237582511852109168640000000000000000000000
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The number of trailing zeroes for $10!$ is 2. The number of trailing zeroes for $100!$ is 24. In this problem, you will be given some number n , and you will determine the number of trailing zeroes for n -factorial.

Input

The first line will consist of a single positive integer n that will denote the number of lines of data to follow. The following n lines will each consist of a single positive integer m , which will be between 1 and 10,000 inclusive.

Output

You should print the number of trailing zeroes for the factorial of each of the given n integers.

Constraints

$1 \leq n \leq 10$

$1 \leq m \leq 10000$

Example Input File

```
5
25
103
78
249
34
```

Example Output to Screen

```
6
24
18
59
7
```